09/068293
AU#2828

WEST Search History

DATE: Thursday, January 02, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L16	l1 and L2 and l9 and l10	377	L16
L15	l1 and l2 and (l9 or l10)	381	L15
L14	l12 or L13	8	L14
L13	l1 with l2 with l10	8	L13
L12	l1 with l2 with l9	8	L12
L11	l1 with l2 with l9L10	0	L11
L10	l3 or l9	755820	L10
L9	l4 or l5 or l6	220071	L9
L8	transduct$ or infect$	180976	L8
L7	promoter	98471	L7
L6	origin	156087	L6
L5	ori	4777	L5
L4	replicat$	88438	L4
L3	packag$	571410	L3
L2	vp1	1773	L2
L1	sv40	14986	L1

END OF SEARCH HISTORY

WEST Search History

DATE: Tuesday, February 11, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L10	l1 and L8	239	L10
L9	l1 same L8	35	L9
L8	vp1 with (vp2 or vp3)	918	L8
L7	l1 same l4 same l5	99	L7
L6	l1 with l4 with l5	11	L6
L5	l2 or l3	8751	L5
L4	infect$	174403	L4
L3	coat protein	5251	L3
L2	capsid	4482	L2
L1	sv40	15612	L1

END OF SEARCH HISTORY

WEST

Print Selection

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Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
☑	6284492	all	all	* 51	USPT,PGPB,JPAB,EPAB,DWPI
☑	6132732	all	all	25	USPT,PGPB,JPAB,EPAB,DWPI
☑	5905040	all	all	20	USPT,PGPB,JPAB,EPAB,DWPI
☑	4599308	all	all	7	USPT,PGPB,JPAB,EPAB,DWPI

Note: Print requests for more than **49** pages are denoted by '*' and are in red.

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cm1	11e14	gbldptr

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☑	5622930	all	all	20	USPT,PGPB,JPAB,EPAB,DWPI
☑	20020068326	all	all	18	USPT,PGPB,JPAB,EPAB,DWPI

Building	Room	Printer
cm1	11e14	gbldptr

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Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
☑	6132732	all	all	25	USPT,PGPB,JPAB,EPAB,DWPI
☑	5908779	all	all	12	USPT,PGPB,JPAB,EPAB,DWPI
☑	5817512	all	all	* 64	USPT,PGPB,JPAB,EPAB,DWPI
☑	5905040	all	all	20	USPT,PGPB,JPAB,EPAB,DWPI
☑	6051426	all	all	14	USPT,PGPB,JPAB,EPAB,DWPI

Note: Print requests for more than **49** pages are denoted by '*' and are in red.

Building	Room	Printer
cm1	11e14	gbldptr

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WEST

Print Selection

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Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
☑	6284492	all	all	* 51	USPT,PGPB,JPAB,EPAB,DWPI
☑	20020068326	all	all	18	USPT,PGPB,JPAB,EPAB,DWPI
☑	5118627	all	all	7	USPT,PGPB,JPAB,EPAB,DWPI
☑	5858726	all	all	13	USPT,PGPB,JPAB,EPAB,DWPI
☑	5773278	all	all	* 61	USPT,PGPB,JPAB,EPAB,DWPI

Note: Print requests for more than **49** pages are denoted by '*' and are in red.

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cm1	11e14	gbldptr

Main Menu | Logout

=> s sv40
L1 41010 SV40

=> s self assembl?
L2 34538 SELF ASSEMBL?

=> s l1 and l2
L3 27 L1 AND L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 13 DUP REM L3 (14 DUPLICATES REMOVED)

=> d l4 ibib abs 1-13

L4 ANSWER 1 OF 13 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2003-103235 [09] WPIDS
DOC. NO. CPI: C2003-025956
TITLE: Novel oligonucleotide useful for interfering with the activity of a target nucleic acid molecule, and detecting pathogens, comprise a alkynyl functional group at C5 position of a pyrimidine heterocyclic base.
DERWENT CLASS: B04 D16
INVENTOR(S): BARNES, T W; TURNER, D H
PATENT ASSIGNEE(S): (UYRP) UNIV ROCHESTER
COUNTRY COUNT: 99
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002078619	A2	20021010 (200309)*		EN	86

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002078619	A2	WO 2002-US4506	20020213

PRIORITY APPLN. INFO: US 2001-268429P 20010213
AN 2003-103235 [09] WPIDS
AB WO 200278619 A UPAB: 20030206
NOVELTY - An oligonucleotide (I) comprising first nucleotide (N1) comprising at least one alkynyl functional group (G1) at a C5 position of a pyrimidine heterocyclic base (II), and at least one second nucleotide (N2) covalently bound to N1 and comprising at least one G1 at C5 position of (II), is new.
DETAILED DESCRIPTION - An oligonucleotide (I) comprising a first nucleotide (N1) comprising at least one alkynyl functional group (G1) at a C5 position of a pyrimidine heterocyclic base (II), and at least one second nucleotide (N2) covalently bound to N1 and comprising at least one G1 at C5 position of (II), where (I) comprises:
(a) loss in free energy of at least about 2 kcal/mol when:
(i) G1 of N1 is removed from C5 position of (II), and
(ii) (I) is covalently or non-covalently bound to nucleic acid molecule comprising nucleotide sequence that is substantially Watson-Crick complementary to sequence of (I); or
(b) loss in free energy of at least about 2.8 kcal/mol when:
(i) (I) is covalently or non-covalently bound to nucleic acid molecule comprising a nucleotide sequence that is less than substantially Watson-Crick complementary to (I); and
(ii) N1 of (I) is covalently or non-covalently bound to a nucleotide of the nucleic acid which is not a Watson-Crick base pairing nucleotide for N1.
INDEPENDENT CLAIMS are also included for the following:
(1) A duplex (III) comprising a nucleic acid molecule and (I) hybridized to the nucleic acid molecule;
(2) Designing (M1) an oligonucleotide capable of interfering with the function of a target nucleic acid molecule;
(3) A microarray detection device (IV) comprising a substrate and several oligonucleotides bound to the substrate, each of the oligonucleotides comprising at least 6 nucleotide bases where 6 or more adjacent nucleotide bases of each are alkynylated;
(4) Making (M2) a product; and
(5) A ***self*** - ***assembling*** system (V) for preparing a product.
ACTIVITY - None given.
MECHANISM OF ACTION - Gene Therapy
No supporting data is given.
USE - (I) is useful for interfering with the activity of a target nucleic acid molecule (an RNA molecule, DNA molecule or a natural or unnatural molecule of related structure, and is preferably not ***SV40*** TAg mRNA) which comprises introducing into an in vitro or in vivo system including a target nucleic acid molecule, (I) which is effective to bind to the target nucleic acid molecule in a sufficient to interfere with its activity. (I) is useful for detecting the localization of a target nucleic acid molecule in an in vitro or in vivo system which comprises introducing into anin vitro or in vivo system, a labeled (I) including a nucleotide sequence which is substantially complementary and specific to a nucleotide sequence of a target nucleic acid molecule and having 6 or more adjacent nucleotide bases that are alkynylated, allowing sufficient time for the labeled (I) to hybridize with the target nucleic acid molecule, and determining the location of the labeled (I) in the system, the location of the labeled (I) being the same as the location of the target nucleic acid molecule.
(IV) is useful for identifying an oligonucleotide having binding affinity for a target nucleic acid molecule comprising introducing a target nucleic acid molecule to (IV) under conditions effective for hybridization of substantially complementary sequences between the target nucleic acid molecule and the oligonucleotide, and detecting whether hybridization occurs between the target nucleic acid molecule and one or more several oligonucleotides bound to the substrate. The method further comprises identifying the nucleotide sequence and position of alkynylated bases in an oligonucleotide that hybridized to the target nucleic acid molecule. (IV) is also useful for detecting the presence of a target nucleic acid molecule (e.g., a target nucleic acid specific for a pathogen) in a sample which involves passing a sample over (IV) under conditions suitable for hybridization to occur between oligonucleotides and target nucleic acid molecules, and determining whether any target nucleic acid molecules hybridized to oligonucleotides during the passing (all claimed).
(I) is useful for inhibiting activity of target nucleic acid where the inhibition is performed in vitro for research purposes for identifying viable targets, or in vivo providing a therapeutic or preventative treatment of a condition associated with activity of target nucleic acid molecule. By inhibiting activity of target nucleic acid molecule, (I) lessens the severity or altogether overcomes the condition or disorder associated with the activity of target nucleic acid molecule.
ADVANTAGE - (I) possess greater affinity and higher stability with their target. The duplexes formed using (I) are stable at temperatures which would normally melt a duplex.
Dwg.0/14

L4 ANSWER 2 OF 13 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2000-452401 [39] WPIDS
CROSS REFERENCE: 2000-452400 [39]; 2000-465745 [39]
DOC. NO. CPI: C2000-137950
TITLE: Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV Env polypeptide and the polypeptide useful for immunizing a mammal especially human against HIV.
DERWENT CLASS: B04 D16
INVENTOR(S): BARNETT, S; ZUR MEGEDE, J
PATENT ASSIGNEE(S): (CHIR) CHIRON CORP
COUNTRY COUNT: 87
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 2000039304 A2 20000706 (200039)* EN 113
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT UA UG UZ VN YU ZA ZW
AU 2000024873 A 20000731 (200050)
EP 1141314 A2 20011010 (200167) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000039304	A2	WO 1999-US31273	19991230
AU 2000024873	A	AU 2000-24873	19991230
EP 1141314	A2	EP 1999-968202	19991230
		WO 1999-US31273	19991230

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000024873	A Based on	WO 200039304
EP 1141314	A2 Based on	WO 200039304

PRIORITY APPLN. INFO: US 1999-152195P 19990901; US 1998-114495P 19981231
AN 2000-452401 [39] WPIDS
CR 2000-452400 [39]; 2000-465745 [39]
AB WO 200039304 A UPAB: 20011119
NOVELTY - An expression cassette (I) comprising a polynucleotide encoding
antigenic type C HIV Gag polypeptide (IIa) or a HIV Env polypeptide (IIb),
is new.
DETAILED DESCRIPTION - (I) comprises:
(a) a polynucleotide (Ia) encoding (IIa) having a nucleotide sequence 90% identical to a sequence having nucleotides 844-903 of a sequence (s1)
having 60 bp or 841-900 of a sequence (s2) having 60 bp or a sequence (s3)
having 1479 or 1509 bp as given in the specification; or
(b) a polynucleotide (Ib) encoding (IIb) having a nucleotide sequence 90% identical to a sequence having nucleotides 1213-1353 of 141 bp as given in the specification.
INDEPENDENT CLAIMS are also included for the following:
(1) a recombinant expression system (III) comprising (I) operably linked to control elements compatible with expression in the selected host cell;
(2) a cell (IV) comprising (I) operably linked to control elements compatible with expression in the selected host cell; and
(3) a composition comprising (I) for generating an immune response.
ACTIVITY - Anti-HIV.
MECHANISM OF ACTION - Vaccine.
The plasmid DNA pCMVKM2 carrying the synthetic Gag expression cassette, was diluted to the following final concentrations in a total injection volume of 100 mu l: 20 mu g, 2 mu g, 0.2 mu g, 0.02 and 0.002 mu g. As a control, plasmid DNA of the native Gag expression cassette was handled in the same manner. Twelve groups of four or ten Balb/c mice were intramuscularly immunized for a period of 0-4 weeks. The human immune response was checked with an anti-HIV Gag or Env antibody ELISAs of the mice sera 0 and 4 weeks post immunization. Synthetic expression cassettes will provide a clear improvement of immunogenicity relative to the native expression cassettes. The frequency of specific cytotoxic T-lymphocytes (CTL) was evaluated by a standard chromium release assay of peptide pulsed Balb/c mouse CD4 cells. Env expressing vaccinia virus infected CD-8 cells were used as a positive control. Cytotoxic activity was measured in a standard 51Cr release assay. Target (T) cells were cultured with effector (E) cells at various E:T ratios for 4 hours and the average cpm from duplicate wells were used to calculate percent specific 51Cr release. Cytotoxic T-cell (CTL) activity was measured in splenocytes recovered from mice immunized with HIV Gag or Env DNA. Specific lysis of Gag or Env peptide-pulsed SV-BALB (MHC matched) targets cells, indicative of a CTL response. Target cells that were peptide-pulsed and derived from an MHC-unmatched mouse strain (MC57) were not lysed. Thus, synthetic Env and Gag expression cassettes exhibit increased potency for induction of cytotoxic T-lymphocyte (CTL) responses by DNA immunization.
USE - Composition comprising (I) or (IIa) or (IIb) is useful (as a vaccine) for immunizing a subject preferably a mammal especially human against HIV. The method comprises expressing (IV) under suitable conditions of expression, isolating (II) produced in administering it to elicit an immune response (claimed). Gag of HIV-1 ***self*** ***assemble*** into non-infectious virus-like particles which are used as a matrix for the proper presentation of an antigen entrapped or associated to the immune system of the host.
Dwg.0/6

L4 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:390718 HCAPLUS
DOCUMENT NUMBER: 127:2970
TITLE: Construction of ***SV40*** virions with then use of a helper virus and their use in the delivery of foreign nucleic acids
INVENTOR(S): Sandalon, Ziv; Oppenheim, Amos B.; Oppenheim, Ariella
PATENT ASSIGNEE(S): Yissum Research Development Company of the Hebrew University of Jerusalem, Israel; Hadasit Medical Research Services and Development Co., Ltd.; Sandalon, Ziv; Oppenheim, Amos, B.; Oppenheim, Ariella
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9717456	A1	19970515	WO 1996-IL143	19961106
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9673314	A1	19970529	AU 1996-73314	19961106
AU 719601	B2	20000511		
EP 859855	A1	19980826	EP 1996-935316	19961106
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE				

PRIORITY APPLN. INFO.: IL 1995-115880 A 19951106
WO 1996-IL143 W 19961106
AB An in vitro method of assembling infectious ***SV40*** particles from purified capsid proteins and carrying a foreign nucleic acid, such as a therapeutic gene or a ribozyme, with the use of a helper virus is described. These capsids may be used for the therapeutic delivery of nucleic acids to an individual. Assembly of the capsids may use the capsid proteins (VP1, VP2, VP3) themselves, but may also use the ***SV40*** agnoprotein. The capsid proteins were manufd. by expression

of the genes in Sf9 cells using a com. baculovirus vector. The proteins spontaneously formed capsids in vitro. When the proteins were brought together in the presence of a plasmid carrying a reporter gene, the plasmid was incorporated into the capsids. The in vitro assembly was not dependent upon the ses element in the DNA and plasmids significantly larger than the ***SV40*** chromosome could be packaged.

L4 ANSWER 4 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1
ACCESSION NUMBER: 1998:7382 BIOSIS
DOCUMENT NUMBER: PREV199800007382
TITLE: ***Self*** - ***assembly*** and protein-protein interactions between the ***SV40*** capsid proteins produced in insect cells.
AUTHOR(S): Sandalon, Ziv; Oppenheim, Ariella (1)
CORPORATE SOURCE: (1) Dep. Hematol., Hebrew Univ.-Hadassah Med. Sch., Jerusalem 91120 Israel
SOURCE: Virology, (Oct. 27, 1997) Vol. 237, No. 2, pp. 414-421. ISSN: 0042-6822.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Soluble ***SV40*** capsid proteins were obtained by expression of the three late genes, VP1, VP2, and VP3, in Sf9 cells using baculovirus expression vectors. Coproduction of the capsid proteins VP1, VP2, and VP3 was achieved by infecting Sf9 cells with the three recombinant baculovirus species at equal multiplicities. All three proteins were found to be localized in the nuclear fraction. Electron microscopy of nuclear extracts of the infected cells showed an abundance of ***SV40*** -like capsid structures and heterogeneous aggregates of variable sire, mostly 20-45 nm. Under the same staining conditions wild-type ***SV40*** virions are 45 nm. The capsid-like particles sedimented in glycerol gradients similarly to authentic wild-type ***SV40*** virions. Pentamers of the major capsid protein VP1 were also seen. Protein analysis on sucrose gradients demonstrated that the capsid-like particles can be disrupted by treatment with the reducing agent dithiothreitol and the calcium chelator EGTA. The capsid-like particles were found to be significantly less stable than ***SV40*** virions and were partially stabilized by calcium ions. Understanding the complex interactions between the capsid proteins is important for the development of an efficient in vitro packaging system for ***SV40*** virions and pseudovirions.

L4 ANSWER 5 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
2
ACCESSION NUMBER: 1996:152033 BIOSIS
DOCUMENT NUMBER: PREV199698724168
TITLE: Filensin and phakinin form a novel type of beaded intermediate filaments and coassemble de novo in cultured cells.
AUTHOR(S): Goulielmos, George; Gounari, Fotini; Remington, Susann; Mueller, Shirley; Haener, Markus; Aebi, Ueli; Georgatos, Spyros D. (1)
CORPORATE SOURCE: (1) Dep. Basis Sci., Univ. Crete Sch. Med., 711 10 Heraklion, Crete Greece
SOURCE: Journal of Cell Biology, (1996) Vol. 132, No. 4, pp. 643-655. ISSN: 0021-9525.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The fiber cells of the eye lens possess a unique cytoskeletal system known as the "beaded-chain filaments" (BFs). BFs consist of filensin and phakinin, two recently characterized intermediate filament (IF) proteins. To examine the organization and the assembly of these heteropolymeric IFs, we have performed a series of in vitro polymerization studies and transfection experiments. Filaments assembled from purified filensin and phakinin exhibit the characteristic 19-21-nm periodicity seen in many types of IFs upon low angle rotary shadowing. However, quantitative mass-per-length (MPL) measurements indicate that filensin/phakinin filaments comprise two distinct and dissociable components: a core filament and a peripheral filament moiety. Consistent with a nonuniform organization, visualization of unfixed and unstained specimens by scanning transmission electron microscopy (STEM) reveals the existence of a central filament which is decorated by regularly spaced 12-15-nm-diam beads. Our data suggest that the filamentous core is composed of phakinin, which exhibits a tendency to ***self*** - ***assemble*** into filament bundles, whereas the beads contain filensin/phakinin hetero-oligomers. Filensin and phakinin copolymerize and form filamentous structures when expressed transiently in cultured cells. Experiments in IF-free SW13 cells reveal that coassembly of the lens-specific proteins in vivo does not require a preexisting IF system. In epithelial MCF-7 cells de novo forming filaments appear to grow from distinct foci and organize as thick, fibrous laminae which line the plasma membrane and the nuclear envelope. However, filament assembly in CHO and ***SV40*** -transformed lens-epithelial cells (both of which are fibroblast-like) yields radial networks which codistribute with the endogenous vimentin IFs. These observations document that the filaments formed by lens-specific IF proteins are structurally distinct from ordinary cytoplasmic IFs. Furthermore, the results suggest that the spatial arrangement of filensin/phakinin filaments in vivo is subject to regulation by host-specific factors. These factors may involve cytoskeletal networks (e.g., vimentin IFs) and/or specific sites associated with the cellular membranes.

L4 ANSWER 6 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3
ACCESSION NUMBER: 1995:308064 BIOSIS
DOCUMENT NUMBER: PREV199598322364
TITLE: Morphology and antigenicity of recombinant B19 parvovirus capsids expressed in transfected COS-7 cells.
AUTHOR(S): Cohen, B. J. (1); Field, A. M.; Mori, J.; Brown, K. E.; Clewley, J. P.; Amand, J. S.; Astell, C. R.
CORPORATE SOURCE: (1) PHLS Virus Reference Div., Cent. Publ. Health Lab., 61 Colindale Ave., London NW9 5HT UK
SOURCE: Journal of General Virology, (1995) Vol. 76, No. 5, pp. 1233-1237. ISSN: 0022-1317. QR1.J6
DOCUMENT TYPE: Article
LANGUAGE: English
AB COS-7 cells transfected with parvovirus B19-simian virus 40 (***SV40***) hybrid vectors have previously been shown to express B19 structural proteins. In this study the morphology and antigenicity of B19 proteins expressed in these cells were investigated. At 84 h after transfection, approximately 10% of the COS-7 cells expressed B19 antigen, and the yield was equivalent to 2 times 10-3 to 2 times 10-5 B19 particles/transfected cell. The B19 proteins ***self*** - ***assembled*** into capsids that were morphologically and antigenically similar to native B19 virions, and could substitute for native antigen in a B19 IgM assay. Recombinant capsids lacking the recently described 11 kDa protein also resembled native virions.

L4 ANSWER 7 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
4
ACCESSION NUMBER: 1995:165412 BIOSIS
DOCUMENT NUMBER: PREV199598179712
TITLE: ***SV40*** VP1 Assembles into Disulfide-Linked Postpentameric Complexes in Cell-Free Lysates.
AUTHOR(S): Gharakhanian, Editte (1); Sajo, Andrew K.; Weidman, M. K.
CORPORATE SOURCE: (1) Dep. Biol. Sci., California State Univ. Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-3702 USA
SOURCE: Virology, (1995) Vol. 207, No. 1, pp. 251-254. ISSN: 0042-6822. QR1.V5
DOCUMENT TYPE: Article
LANGUAGE: English
AB The simian virus 40 (***SV40***) capsid is composed of pentameric capsomeres of the major structural protein, Vp1. The chemical nature of Vp1-Vp1 interactions, as well as the role of the minor structural proteins, Vp2 and Vp3, in ***SV40*** assembly is not clear. We show

here that Vp1 molecules synthesized in rabbit reticulocyte lysates ***self*** - ***assembled*** into postpentameric 12S complexes in the absence of other viral structural proteins and in a time and concentration dependent manner. The 12S complexes were resistant to perturbants of noncovalent interactions but were sensitive to reduction by dithiothreitol. Nonreducing SDS-PAGE analysis revealed disulfide-linked VP1 complexes of gt 400 kDa. Our results are consistent with crystallography studies of ***SV40*** which suggest involvement of disulfide bonds at a postcapsomeric stage of viral assembly.

L4 ANSWER 8 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:365361 BIOSIS
DOCUMENT NUMBER: PREV199396051036
TITLE: The primary ***self*** - ***assembly*** reaction of bacteriophage lambda cI repressor dimers is to octamer.
AUTHOR(S): Senear, Donald F. (1); Laue, Thomas M.; Ross, J. B. Alexander (1); Waxman, Evan; Eaton, Steven; Rusinova, Elena
CORPORATE SOURCE: (1) Dep. Mol. Biol. and Biochem., Univ. Calif., Irvine, CA 92717 USA
SOURCE: Biochemistry, (1993) Vol. 32, No. 24, pp. 6179-6189. ISSN: 0006-2960.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Cooperative binding of the bacteriophage lambda cI repressor dimer to specific sites of the phage operators O-R and O-L controls the developmental state of the phage. It has long been believed that cooperativity is mediated by ***self*** - ***assembly*** of repressor dimers to form tetramers which can then bind simultaneously to adjacent operator sites. As a first step in defining the individual energy contributions to binding cooperativity, sedimentation equilibrium and steady-state fluorescence anisotropy methods have been used to study the higher order assembly reactions of the free repressor in solution. Wild-type repressor with 5-hydroxytryptophan (5-OHTrp) substituted for the native tryptophan (Ross et al. (1992) Proc. Natl. Acad. Sci. U.S.A. 89, 12023-12027) and two mutant repressor proteins that bind cooperatively to OR but have altered dimerization properties were also studied. We report here that the primary assembly mode of all four proteins is dimer to octamer. It is not dimer to tetramer as previously assumed. While tetramer does form as an assembly intermediate, dimer-octamer assembly is a concerted process so that tetramer is never a predominant species in solution. Sedimentation velocity experiments suggest that the octamer is highly asymmetric, consistent with an elongated shape. This conformation could allow octamers to bind simultaneously to all three operator sites at either O-R or O-L. Examination of tetramer and octamer concentrations suggests that both species could be involved in cooperative repressor-operator interactions. Our previous work used the unique spectral properties of 5-OHTrp to demonstrate that octamer binds single-operator DNA and is not dissociated to tetramer (Laue et al. (1993) Biochemistry 32, 2469-2472). Taken together with the results presented here, octamers as well as tetramers must be considered in developing models to explain the cooperativity of lambda cI repressor binding to operator DNA.

L4 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:403911 HCAPLUS
DOCUMENT NUMBER: 117:3911
TITLE: Virus structure puzzle solved
AUTHOR(S): Caspar, Donald L. D.
CORPORATE SOURCE: Rosenstiel Basic Med. Sci. Res. Cent., Brandeis Univ., Waltham, MA, 02254-9110, USA
SOURCE: Current Biology (1992), 2(4), 169-71 CODEN: CUBLE2; ISSN: 0960-9822
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Unanticipated switching mechanisms in the ***self*** - ***assembly*** of the coat protein of ***SV40*** virus have been revealed by its at. resoln. structure.

L4 ANSWER 10 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1991:3773 BIOSIS
DOCUMENT NUMBER: BA91:3773
TITLE: A SINGLE AMINO ACID SUBSTITUTION WITHIN THE MATRIX PROTEIN OF A TYPE D RETROVIRUS CONVERTS ITS MORPHOGENESIS TO THAT OF A TYPE C RETROVIRUS.
AUTHOR(S): RHEE S S; HUNTER E
CORPORATE SOURCE: DEP. MICROBIOL., UNIV. OF ALABAMA AT BIRMINGHAM, BIRMINGHAM, ALA. 35294.
SOURCE: CELL, (1990) 63 (1), 77-86. CODEN: CELLB5. ISSN: 0092-8674.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Two different morphogenic processes of retroviral capsid assembly have been observed: the capsid is either assembled at the plasma membrane during the budding process (type C), or preassembled within the cytoplasm (types B and D). We describe here a gag mutant of Mason-Pfizer monkey virus, a type D retrovirus, in which a tryptophan substituted for an arginine in the matrix protein results in efficient assembly of capsids at the plasma membrane through a morphogenic process similar to that of type C retroviruses. We conclude that a type D retrovirus Gag polyprotein contains an additional, dominant signal that prevents immediate transport of precursors from the site of biosynthesis to the plasma membrane. Instead, they are directed to and retained at a cytoplasmic site where a concentration sufficient for ***self*** - ***assembly*** into capsids occurs. Thus, capsid assembly processes for different retroviruses appear to differ only in the intracellular site to which capsid precursors are directed.

L4 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:626196 HCAPLUS
DOCUMENT NUMBER: 109:226196
TITLE: In vitro assay for protein-protein interaction: carboxyl-terminal 40 residues of simian virus 40 structural protein VP3 contain a determinant for interaction with VP1
AUTHOR(S): Gharakhanian, Editte; Takahashi, Jeffrey; Clever, Jared; Kasamatsu, Harumi
CORPORATE SOURCE: Mol. Biol. Inst., Univ. California, Los Angeles, CA, 90024-1606, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1988), 85(18), 6607-11 CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Intermol. interactions between polypeptide chains play essential roles in the functioning of proteins. An in vitro assay system for identifying and characterizing such interactions is described. Such interactions are difficult to study in vivo. Synthetic, nonmethyl-capped RNAs were translated in a cell-free protein-synthesizing system. The translation products were allowed to interact posttranslationally to form protein-protein complexes. The chem. nature of the protein interaction(s) was detd. by coimmunopptn. of assocg. proteins, sedimentation through sucrose gradients, followed by SDS-polyacrylamide gel electrophoresis or by nonreducing SDS-polyacrylamide gel electrophoresis. The system has been utilized to show the ***self*** - ***assembly*** of monomeric VP1, the major structural protein of simian virus 40, into disulfide-linked pentamers and to show the noncovalent interaction of another structural protein, VP3, with VP1 at low monomer concns. Addnl., the carboxyl-terminal 40 amino acids of VP3 are shown to be essential and sufficient for its interaction with VP1 in vitro. The in vitro assay system described here provides a method for identifying the domains involved in, and the mol. nature of, protein-protein interactions, which play an important role in such biol. phenomena as replication, transcription, translation, transport, ligand binding, and assembly.

L4 ANSWER 12 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 5
ACCESSION NUMBER: 1983:246749 BIOSIS
DOCUMENT NUMBER: BA76:4241

TITLE: ***SELF*** ***ASSEMBLY*** OF SV-40 LARGE T ANTIGEN
OLIGOMERS BY DIVALENT CATIONS.
AUTHOR(S): MONTENARH M; HENNING R
CORPORATE SOURCE: DEP. OF BIOCHEM., ULM UNIV., D-7900 ULM, F.R.G.
SOURCE: J VIROL, (1983) 45 (2), 531-538.
CODEN: JOVIAM. ISSN: 0022-538X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB In ***SV40*** -transformed human skin fibroblast SV80 cells, large T
antigen can be detected in different forms separable by sucrose density gradient centrifugation. Light forms sedimented around 5-7S, oligomers such as tetramers were detected around 16S and higher aggregates sedimented in a broad distribution reaching above 23S. The oligomers sedimenting at and above 16S could be disassembled into the slow sedimenting 5-7S forms by chelating agents [EDTA or ethylene bis(oxonitrilo)tetraacetate]. After the addition of divalent cations (CaCl2 or MgCl2) in excess of chelating agents, oligomeric forms reassembled and appeared in a sedimentation pattern resembling that observed before treatment with chelating agents. Time course studies permitted the identification of the 5-7S forms as precurosrs upon pulse-labeling (15 min); the 16S and higher oligomers were identified as the successors after a 14 h chase. Treatment of extracts of pulse-chase-labeled cells with chelating agents again disassembled the oligomers, pulse-labeled precursors did not change their 5-7S sedimentation pattern. Adding an excess of divalent cations reassembled the pulse-chase-labeled T antigen to oligomers but did not influence the sedimentation behavior of pulse-labeled 5 to 7S precursors. Evidently, a posttranslational modulation induces divalent cation binding, leading finally to the oligomerization of T antigen. Thus, some of the multifunctional activities of T antigen can be dictated by divalent cation binding properties.

L4 ANSWER 13 OF 13 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 6
ACCESSION NUMBER: 78410837 EMBASE
DOCUMENT NUMBER: 1978410837
TITLE: Radioimmunoassay for tubulin: a quantitative comparison of the tubulin content of different established tissue culture cells and tissues.
AUTHOR: Hiller G.; Weber K.
CORPORATE SOURCE: Max-Planck Inst. Biophys. Chem., D-3400 Goettingen, Germany
SOURCE: Cell, (1978) 14/4 (795-804).
CODEN: CELLB5
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 023 Nuclear Medicine
LANGUAGE: English
AB A quantitative estimate of the cellular tubulin concentration can be obtained by the use of a radioimmunoassay based upon the competition between tubulin in cell extracts and a known amount of radioactively labeled homogeneous tubulin during binding to a limited amount of anti-tubulin antibodies. This assay shows that a variety of widely used tissue culture cells (mouse L cells, mouse 3T3 cells, chick embryo fibroblasts) have a tubulin content which corresponds to approximately 2.5-3.3% of their total protein. Transformation of mouse 3T3 cells by the DNA virus ***SV40*** , and of chick embryo cells by the RNA Rous sarcoma virus, does not change the intracellular tubulin concentration. Transformed cells of brain origin, such as some glia tumor cell lines and some neuroblastoma cell lines, have a much lower tubulin content than does
normal brain tissue. The intracellular concentration of tubulin in mouse 3T3 cells is discussed in relation to the number of microtubules detected during interphase by immunofluorescence microscopy. These results are also
discussed in view of a mechanism of microtubule elongation in vivo driven by ***self*** - ***assembly*** .

=> s vp1
L5 8655 VP1

=> d his

(FILE 'HOME' ENTERED AT 16:26:43 ON 08 MAR 2003)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED AT 16:26:52 ON 08 MAR 2003
L1 41010 S SV40
L2 34538 S SELF ASSEMBL?
L3 27 S L1 AND L2
L4 13 DUP REM L3 (14 DUPLICATES REMOVED)
L5 8655 S VP1

=> s l1 and l5
L6 537 L1 AND L5

=> s pseudo?
L7 700923 PSEUDO?

=> s l1 and l5 and l6
L8 537 L1 AND L5 AND L6

=> s pseudovirion?
L9 382 PSEUDOVIRION?

=> s l1 and l5 and l9
L10 14 L1 AND L5 AND L9

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11 6 DUP REM L10 (8 DUPLICATES REMOVED)

=> d l11 ibib abs 1-6

L11 ANSWER 1 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
ACCESSION NUMBER: 2002:360964 BIOSIS
DOCUMENT NUMBER: PREV200200360964
TITLE: Cellular transcription factor Sp1 recruits simian virus 40 capsid proteins to the viral packaging signal, ses.
AUTHOR(S): Gordon-Shaag, Ariela; Ben-Nun-Shaul, Orly; Roitman, Vered;
Yosef, Yael; Oppenheim, Ariella (1)
CORPORATE SOURCE: (1) Department of Hematology, The Hebrew University-Hadassah Medical School and Hadassah University Hospital, Ein Kerem, Jerusalem, 91120: ariella@md.huji.ac.il Israel
SOURCE: Journal of Virology, (June, 2002) Vol. 76, No. 12, pp. 5915-5924. http://intl-jvi.asm.org/. print.
ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Simian virus 40 (***SV40***) capsid assembly occurs in the nucleus. All three capsid proteins bind DNA nonspecifically, raising the dilemma of how they attain specificity to the ***SV40*** minichromosome in the presence of a large excess of genomic DNA. The ***SV40*** packaging
signal, ses, which is required for assembly, is composed of multiple DNA elements that bind transcription factor Sp1. Our previous studies showed that Sp1 participates in ***SV40*** assembly and that it cooperates in DNA binding with VP2/3. We hypothesized that Sp1 recruits the capsid proteins to the viral minichromosome, conferring upon them specific DNA recognition. Here, we have tested the hypothesis. Computer analysis showed
that the combination of six tandem GC boxes at ses is not found at cellular promoters and therefore is unique to ***SV40*** .
Cooperativity in DNA binding between Sp1 and VP2/3 was not abolished at
even a 1,000-fold excess of cellular DNA, providing strong support for the recruitment hypothesis. Sp1 also binds ***VP1*** and cooperates with ***VP1*** in DNA binding. ***VP1*** pentamers (VP15) avidly interact
with VP2/3, utilizing the same VP2/3 domain as described for polyomavirus.
We conclude that VP15-VP2/3 building blocks are recruited by Sp1 to ses,
where they form the nucleation center for capsid assembly. By this mechanism the virus ensures that capsid formation is initiated at a single site around its minichromosome. Sp1 enhances the formation of ***SV40***
pseudovirions in vitro, providing additional support for the model. Analyses of Sp1 and VP3 deletion mutants showed that Sp1 and

VP2/3
bind one another and cooperate in DNA binding through their DNA-binding
domains, with additional contacts outside these domains. ***VP1*** contacts Sp1 at residues outside the Sp1 DNA-binding domain. These and additional data allowed us to propose a molecular model for the VP15-VP2/3-DNA-Sp1 complex.

L11 ANSWER 2 OF 6 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2002-527338 [56] WPIDS
DOC. NO. CPI: C2002-149277
TITLE: In vitro assembly of simian virus 40 pseudoviruses containing exogenous constituent comprises contacting semi-purified or pure ***SV40*** capsid protein and exogenous constituent in presence of poly (adenosine diphosphate-ribose) polymerase.
DERWENT CLASS: B04 D16
INVENTOR(S): GORDON-SHAAG, A; OPPENHEIM, A
PATENT ASSIGNEE(S): (HADA-N) HADASIT MEDICAL RES SERVICES & DEV; (YISS)
YISSUM RES DEV CO HEBREW UNIV JERUSALEM
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001094560	A2	20011213	(200256)*	EN	42

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001074444 A 20011217 (200256)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001094560	A2	WO 2001-IL520	20010606
AU 2001074444	A	AU 2001-74444	20010606

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001074444	A Based on	WO 200194560

PRIORITY APPLN. INFO: IL 2000-136610 20000606
AN 2002-527338 [56] WPIDS
AB WO 200194560 A UPAB: 20020903
NOVELTY - Improved in vitro assembly (M1) of simian virus (SV)40 pseudoviruses comprising at least one pure or semi-purified ***SV40***

capsid protein (I) and at least one exogenous constituent (II) such as nucleic acid, protein or peptide comprising contacting at least one semi-purified or purified (I) with at least one (II) in the presence of semi-purified or purified poly(ADP-ribose) polymerase (PARP), is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
following:
(1) an ***SV40*** virus or pseudovirus (III) prepared by contacting (I) (preferably, semi-purified or pure ***SV40*** ***VP1***) with an exogenous constituent (an exogenous nucleic acid encoding a therapeutic protein or peptide (IV) (e.g., an enzyme, receptor, a structural or regulatory protein, or a hormone, and preferably human beta -globin, multidrug resistance (MDR)1 or glucocerebrosidase) which is
not expressed, is expressed in an abnormally low amount, or is expressed in defective form or is expressed in physiologically abnormal amount, in a target cell) in the presence of PARP;
(2) a mammalian cell (V) infected with (III); and
(3) pharmaceutical compositions (VI) for treating hereditary diseases, malignant diseases, bacterial and viral infection diseases or autoimmune diseases comprising (III) or (V).
ACTIVITY - Antibacterial; Virucide; Cytostatic; Immunosuppressive; Antianemic.
MECHANISM OF ACTION - Gene therapy; Antisense therapy; Vaccine. No
supporting data is given.
USE - For in vitro assembly of ***SV40*** pseudoviruses. (III) and (V) are useful for providing a therapeutic DNA, RNA, antisense RNA,
ribozyme RNA, chimeric RNA or DNA, protein or peptide product, to a patient. (III) and (V) are also useful in the preparation of a pharmaceutical composition for treating a pathological disorder which requires expression of a product normally not made by the individual, or modulation of a product that is made in abnormal amounts or in a defective
or abnormal form. Preferably, the composition is used for increasing expression of human MDR-1 gene, human beta -globin gene and human glucocerebrosidase gene. The pharmaceutical compositions are useful for treating hereditary disorders (such as beta -thalassemia in which case the ***pseudovirions*** comprise the human beta -globin gene. Gaucher disease in which case the ***pseudovirions*** comprise the human glucocerebrosidase gene), malignant diseases, bacterial or viral infections or autoimmune diseases (claimed). (III) is useful for delivering mRNA coding for a protein which promotes homologous recombination, and may be used in co-infection together with constructs comprising the mRNA encoding for proteins which promote homologous recombination. (VI) is useful for vaccination and immune-modulating treatment purposes.
ADVANTAGE - The method improves the efficiency of the in vitro packaging and the infectivity of the ***pseudovirions*** . The method is highly flexible and allow the development of gene targeting and/or gene replacement therapies. PARP increases the infectivity of ***SV40*** ***pseudovirions*** comprising capsid proteins and a heterologous constituent.
Dwg.0/5

L11 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:82306 HCAPLUS
DOCUMENT NUMBER: 135:283687
TITLE: Production of ***SV40*** proteins in insect cells and in vitro packaging of virions and ***pseudovirions***
AUTHOR(S): Sandalon, Ziv; Oppenheim, Ariella
CORPORATE SOURCE: Department of Molecular Genetics and Microbiology,
State University of New York at Stony Brook, Stony Brook, NY, USA
SOURCE: Methods in Molecular Biology (Totowa, NJ, United States) (2001), 165(SV40 Protocols), 119-128
CODEN: MMBIED; ISSN: 1064-3745
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Protocols are given for the expression of ***SV40*** virus proteins ***VP1*** , VP2, and VP3 using recombinant baculovirus vectors in Sf9
cells. Prodn. of these proteins can lead to the formation of virus-like particles which can be used for packaging ***SV40*** DNA or heterologous plasmid DNA in vitro, leading to the prodn. of functional ***SV40*** virions and ***pseudovirions*** .
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 6 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 2
ACCESSION NUMBER: 97165193 EMBASE
DOCUMENT NUMBER: 1997165193
TITLE: In vitro assembly of ***SV40*** virions and ***pseudovirions*** : Vector development for gene therapy.
AUTHOR: Sandalon Z.; Dalyot-Herman N.; Oppenheim A.B.; Oppenheim A.
CORPORATE SOURCE: Dr. A. Oppenheim, Department of Hematology, Hebrew
Univ.-Hadassah Medical School, Jerusalem 91120, Israel
SOURCE: Human Gene Therapy, (1997) 8/7 (843-849).

Refs: 16
ISSN: 1043-0342 CODEN: HGTHE3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
022 Human Genetics
LANGUAGE: English
SUMMARY LANGUAGE: English
AB ***SV40*** is an attractive potential vector with high-efficiency gene
transfer into a wide variety of human tissues, including the bone marrow, a critical target organ for the cure of many diseases. In the present study, the three ***SV40*** capsid proteins, ***VP1*** , VP2, and VP3, were produced in Spodoptera frugiperda (Sf9) insect cells. Their co-production led to spontaneous assembly of ***SV40*** -like particles. Nuclear extracts containing the three proteins were allowed to interact with purified ***SV40*** DNA, or with plasmid DNA produced
and purified from Escherichia coli. The experiments demonstrated a physical association between the DNA and capsid proteins, protection from
DNase I digestion, and the formation of infectious particles. The results indicate that intact, supercoiled DNA is being packaged and transmitted into the target cells. The transmitted DNA is biologically functional in gene expression and replication. The process, which utilizes naked DNA, is
not dependent on the ***SV40*** packaging signal ses. The procedure allows packaging of plasmids significantly larger than ***SV40*** and permits the inclusion of potent regulatory signals, such as .beta.-globin locus control region (LCR) elements. These studies are the first step in the development of purified, in vitro-constructed ***pseudovirions*** for experimental and medical use.

L11 ANSWER 5 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3
ACCESSION NUMBER: 1998:7382 BIOSIS
DOCUMENT NUMBER: PREV199800007382
TITLE: Self-assembly and protein-protein interactions between the ***SV40*** capsid proteins produced in insect cells.
AUTHOR(S): Sandalon, Ziv; Oppenheim, Ariella (1)
CORPORATE SOURCE: (1) Dep. Hematol., Hebrew Univ.-Hadassah Med. Sch.,
Jerusalem 91120 Israel
SOURCE: Virology, (Oct. 27, 1997) Vol. 237, No. 2, pp. 414-421.
ISSN: 0042-6822.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Soluble ***SV40*** capsid proteins were obtained by expression of the
three late genes, ***VP1*** , VP2, and VP3, in Sf9 cells using baculovirus expression vectors. Coproduction of the capsid proteins ***VP1*** , VP2, and VP3 was achieved by infecting Sf9 cells with the three recombinant baculovirus species at equal multiplicities. All three proteins were found to be localized in the nuclear fraction. Electron microscopy of nuclear extracts of the infected cells showed an abundance of ***SV40*** -like capsid structures and heterogeneous aggregates of variable sire, mostly 20-45 nm. Under the same staining conditions wild-type ***SV40*** virions are 45 nm. The capsid-like particles sedimented in glycerol gradients similarly to authentic wild-type ***SV40*** virions. Pentamers of the major capsid protein ***VP1***
were also seen. Protein analysis on sucrose gradients demonstrated that the capsid-like particles can be disrupted by treatment with the reducing agent dithiothreitol and the calcium chelator EGTA. The capsid-like particles were found to be significantly less stable than ***SV40*** virions and were partially stabilized by calcium ions. Understanding the complex interactions between the capsid proteins is important for the development of an efficient in vitro packaging system for ***SV40*** virions and ***pseudovirions*** .

L11 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:646616 HCAPLUS
DOCUMENT NUMBER: 117:246616
TITLE: Transduction vehicles for transferring DNA to a mammalian cell
INVENTOR(S): Hellwig, Randolph J.
PATENT ASSIGNEE(S): 5 Prime .fwdarw. 3 Prime, Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9216638	A1	19921001	WO 1992-US2000	19920312

W: JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
PRIORITY APPLN. INFO.: US 1991-669881 19910314
AB Transduction vehicles for introducing foreign genes into, e.g. human cells, are prepd. by (1) synthesizing viral capsid proteins in non-primate cells and (2) packaging a nucleoprotein complex contg. a double-stranded, non-viral DNA with the capsid proteins of 1 to form ***pseudovirions***
. The capsid proteins are papovavirus, adenovirus, or herpes virus capsid proteins. Prepn. of ***SV40*** capsid proteins ***VP1*** , VP2, and VP3 by expression of the resp. genes in Escherichia coli, assembly of minichromosomes consisting of pSV2CAT and calf thymus histones, and assembly of ***pseudovirions*** as transduction vehicles were demonstrated. Transduction efficiency was detd. by assay of the reporter enzyme chloramphenicol acetylase.

=> dup rem l8
PROCESSING COMPLETED FOR L8
L12 251 DUP REM L8 (286 DUPLICATES REMOVED)

=> s l12 and py<1996
2 FILES SEARCHED...
4 FILES SEARCHED...
L13 180 L12 AND PY<1996

=> d l13 ibib abs 100-180

L13 ANSWER 100 OF 180 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 75209707 EMBASE
DOCUMENT NUMBER: 1975209707
TITLE: Structural proteins of simian virus 40. I. Histone characteristics of low molecular weight polypeptides.
AUTHOR: Pett D.M.; Estes M.K.; Pagano J.S.
CORPORATE SOURCE: Dept. Bacteriol. Immunol., Sch. Med., Univ. North Carolina,
Chapel Hill, N.C. 27514, United States
SOURCE: Journal of Virology, (1975) 15/2 (379-385).
CODEN: JOVIAM
DOCUMENT TYPE: Journal
FILE SEGMENT: 047 Virology
016 Cancer
LANGUAGE: English
AB The DNA associated polypeptides of simian virus 40 (***SV40***), VP4
(mol wt 14,000), VP5 (mol wt 12,000), and VP6 (mol wt 11,000), have several properties characteristic of cell histones. After extraction from purified ***SV40*** with dilute acids, these three polypeptides co electrophoresed on low pH polyacrylamide gels with monkey kidney cell histones F3, F2b, and F2a1. No virus polypeptide co electrophoresed with histone F1. Polypeptides VP4, 5, and 6 lacked tryptophan, and only VP4 contained cysteine, as determined by sodium dodecyl sulfate polyacrylamide
gel electrophoresis of virus labeled in vivo with [3H]lysine and either [14C]tryptophan or [35S]cystine. All of the capsid polypeptides ***VP1*** , 2, and 3 contained tryptophan whereas only ***VP1*** and
2 contained cysteine. In addition, VP4, 5, and 6 are rich in arginine and lysine when compared with virus labeled with a mixture of amino acids. Analysis of virus grown in cells labeled prior to infection showed that VP4, 5, and 6 were labeled fivefold greater than the major capsid polypeptide, ***VP1*** , which indicates that they were partially derived from preexisting cell histones. Based on these data and on previously determined molecular weight estimates, it is concluded that VP4, 5, and 6 are histones F3, F2b, and F2a1, respectively, although the possibility that ***SV40*** contains a small amount of F2a2 could not be excluded.